

Title : Database Table Version Unload
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Examiner : Khanh B. Pham Art Unit : 2166
Docket : 149-0170US (03-022-US) Customer : 29855

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REPLY BRIEF

In response to the Examiner's Answer mailed 01 November 2007 in the above reference application, please consider the following Reply Brief.

I. STATUS OF CLAIMS

Claims 1-26 and 30 stand rejected. Claims 27-29 have been withdrawn. Claims 1-26 and 30 are appealed.

II. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. Claims 1-11, 14-24 and 30 stand rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 5,881,378 to Hayashi et al. ("Hayashi").

B. Claims 12, 13, 25 and 26 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi in view of US Patent 6,366,917 to St. John Herbert, III ("Herbert").

III. ARGUMENT

A. Section 102 Rejections (35 U.S.C. 102)

Claims 1-11, 14-24, and 30 stand rejected as being anticipated by Hayashi. With respect to independent claim 1, the Examiner alleges that:

Hayashi discloses:

A database unload method, comprising [database, extract logical information, Col 13 lines 5-10]:

receiving a request to extract data from a database table, the database table having a current version associated with a current schema of the database table and a prior version associated with a prior schema of the database table, the request directed to the prior version [request, old version, new version, database, Col 16 lines 55-80, Fig 17A-17B]; and

extracting data from the database table based on the table schema associated with the prior version [database, extract logical information, table, Col 13 lines 5-10, Fig 15A-B].

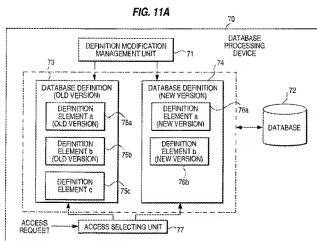
Examiner's Answer at page 4. The Examiner has applied the same logic in rejecting independent claims 14 and 30. *See* Examiner's Answer at page 8.

As detailed below, Hayashi does not anticipate independent claims 1, 14, and 30. Fundamentally, the Examiner's interpretation of Hayashi is inconsistent with the disclosure in Hayashi. In contrast to the Examiner's interpretation, the teachings of Hayashi fail to teach or fairly suggest the claimed elements of independent claims 1, 14, and 30 and cannot, therefore, anticipate these claims.

As one objective, Hayashi is directed to a "derived database processing system" that provides access to multiple databases as if they were a single database. *See* Hayashi at Abstract, 1:14-19, 6:17-19, 3:59-61, 10:14-27, and 15:55-16:18.¹ For example, Hayashi's system provides access to independently developed databases (7:25-63 and Fig. 2), a division database and a central database (7:64-8:65 and Fig. 3), databases having the same schema structure but operated differently (8:66-9:25 and Fig. 4), private and shared databases (9:26-53 and Fig. 5), and a test database and a production database (9:54-10:11 and Fig. 6).

¹ As used herein, the notation A:B-C denotes column A, lines B-C. Similarly, the notation A:B-C:D denotes column A, line B to column C, line D.

As another objective, Hayashi is directed to adjusting the relationship among a database definition, data in the database, and an application program that access the database. This adjustment is done to provide a standardized format for modifying definitions and to shorten the amount of time required to halt operations when making such modifications. *Id.* at 3:62-4:5. To that end, Hayashi's system has a definition modification management unit (71) that manages modifications to a database definition from an old definition (73) to a new definition (74), as shown in FIG. 11A reproduced below. *Id.* at 16:31-35.



During modifications, unit 71 manages definitions 73 and 74 and checks the consistency of the information for new definition 74. *Id.* at 16:40-46. For example, unit 71 makes new definition 74 available in coexistence with old definition 73, verifies that new definition 74 meets the purpose of the modification using a test program, and replaces old definition 73 with new definition 74 when confirmed. *Id.* at 16:63-17:9.

To verify definitions 73 and 74 during modifications, Hayashi discloses that access selecting unit 77 receives an access request. Unit 77 selects an access using either definition 73 or 74 and realizes the access according to the selected definition information. *Id.* at 16:46-52, 18:61-19:18 and FIGS. 15A-15B.

In context then, Hayashi refers to table schema, versions, and definition information only in determining whether a "new" definition is consistent with an "old"

definition and, if such consistency is found, in *replacing* the old definition with the new definition. *Id.* at 16:53-17:9 and Fig. 11A; *See also* 17:30-37 (describing why a consistency check operation is useful) and 20:59-21:9 (describing a new definition operation in which only definition, not table data, is accessed and replaced).

In contrast to Hayashi, independent claims 1, 14, and 30 are directed to a database unload method. In the claimed method, a request is received to ***extract data*** from a database table—not to provide access to multiple databases or to halt access to a database so modifications to the database definition can be managed as in Hayashi. In the claimed method, the database table has a current version associated with a current schema of the database table and a prior version associated with a prior schema of the database table, and the request is directed to the prior version. The claimed method ***extracts data from the database table*** based on the table schema associated with the prior version.

Hayashi provides no such teaching and merely describes managing modifications of database definitions for consistency and integrity between old and new database definitions. Despite this, the Examiner has misinterpreted the role of access selecting unit 77 disclosed in Hayashi by stating that “Hayashi teaches at Fig. 15A the ‘access request’ to extract data from a database table.” Examiner’s Answer at page 9. As explicitly disclosed in Hayashi, however, “access selecting unit 77 allows, *when definition information is being accessed*, either before-modification (old version) definition information or after-modification (new version) definition information to be selected.” Hayashi at 18:63-6, Fig. 11A (emphasis added). Accordingly, the Examiner’s attempt to apply Hayashi’s access selecting unit 77 to the claimed method is inappropriate because Hayashi’s access unit 77 is explicitly described as allowing access to *definition information for modifications* and not to extracting table data in an unload operation as in Assignee’s claims.

To reemphasize that Hayashi fails to teach or suggest extracting table data from a database table based on a specified version of the table (as claimed), Hayashi explicitly states that “access selecting unit 77 *cannot be used* by an application program

which simultaneously accesses to [sic] the definition information comprising both new and old version definition information, but can be used for verification of the new version definition information during the operation using the old version definition information." Hayashi at 18:63-19-5, Fig. 11A (emphasis added). *See also* Hayashi at 19:40-20:8 and Figs. 12, 14A, 17A and 17B (describing accessing table definition information but declaring that "this does not allow a new version to co-operate with an old version" – *that is, data access operations use only the most recent consistent version of the table schema to retrieve or extract data from a table*). Thus, access selecting unit 77 relied upon in the Examiner's rejection is explicitly disclosed as being used for verifying a new database definition and not to extracting table data based on a specified version of a database table.

Further indication of the Examiner's misinterpretation of Hayashi lies in the Examiner's reliance on a particular passage in Hayashi that uses the phrase "extract." The specific passage relied upon by the Examiner refers to Figure 9A and reads as follows:²

The logical information manipulating unit 53 outputs a CS identifier and an original name if it is an alias when a schema name and a table name is inputted to a derived database interpreting unit 14. The logical information manipulating unit 53 extracts logical information from table information. If there is a reference restriction defined in an SQL schema among tables, the logical structure information in the table(s) is also extracted. To update a table associated with the reference restriction, the reference restriction must remain unchanged. [Hayashi at 13:4-13]

Based on this passage, the Examiner alleges that "Hayashi suggests extracting data form [sic] a table based on schema version."³ Final Office Action dated 30 Nov

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- 2 The Examiner also relies upon Figures 15A-B (Office Action dated 14 June 2006 at page 4, last ¶) and 11A (Final Office Action dated 30 Nov 2006 at page 3, 3rd ¶). Neither of these figures support the Examiner's reasons for at least the same reasons as discussed herein.
 - 3 Applicant notes that a rejection based on 35 U.S.C. 102 *does not permit a mere suggestion*. "For a prior art reference to anticipate in terms of 35 U.S.C. 102, every element of the claimed invention must be identically shown in a single reference." *Diversitech Corp. v. Century Steps, Inc.*, 850 F.2d 675, 677, 7 U.S.P.Q.2d (BNA) 1315, 1317 (Fed. Cir. 1988). *See also* M.P.E.P. 2131.

2006 at page 3, 3rd ¶; Office Action dated 14 June 2006 at page 4 (discussion of claim 1); *See also* Examiner's Answer at page 4 referencing Hayashi at 13:5-10. However, this passage says nothing about extracting data from a database table based on table schema versions (*i.e.*, different schemas associated with a single table at different times). On the contrary, Hayashi's unit 53 extracts schema name and table name (*i.e.*, logical information) from table information input into interpreting unit 14 and outputs an identifier and an original name if an alias. Hayashi at 13:14-17. In other words, the "logical information" refers to metadata used to map a logical name or identifier to a corresponding name or identifier in a physical table similar to Hayashi's "storage information manipulating unit 54" described just after logical unit 53. *See* Hayashi at 13:19-23. Thus, logical information manipulating unit 53 referenced by the Examiner extracts *metadata* that defines the mapping between the name a user associates with a logical or virtual database (a "derived database" in the parlance of Hayashi) and a physical database table. The logical information manipulating unit does not unload data from a database table as recited by independent claims 1, 14 and 30. There is absolutely no discussion, or even hint, of such.

As noted herein and in Applicant's prior Replies, Hayashi does not teach, describe, or fairly suggest at least the claimed act of "extracting data from the database table based on the table schema associated with the prior version." For at least this reason, independent claims 1, 14, and 30 are patentable over Hayashi. For at least the same reason, dependent claims 2-11 and 15-24 are patentable over Hayashi as they depend from one of independent claims 1 and 14.

B. Section 103 Rejections (35 U.S.C. 103)

Claims 12, 13, 25 and 26 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi in view of US Patent 6,366,917 to St. John Herbert, III ("Herbert"). Final Office Action dated 30 Nov 2006 at page 5, ¶ 6. Each of claims 12, 13, 25 and 26 depend from one of independent claims 1 and 14. Accordingly, claims 12,

13, 25 and 26 are patentable over the cited prior art for at least the same reasons as independent claims 1 and 14.

C. Conclusion

The Examiner has adopted an interpretation of Hayashi that is counter to the clear teaching of Hayashi. As shown above, Hayashi does not teach, describe or fairly suggest extracting *data* from a table based on a specified version of the table – that is, one of a plurality of schemas associated with the table. For at least this reason, the Examiner has failed to make a legitimate rejection under 35 U.S.C. 102 with respect to claims 1-11, 14-24 and 30. Further, the Examiner's rejection of claims 12, 13, 25 and 26 under 35 U.S.C. 103 is moot in so far as each of these claims depend from one of independent claims 1 and 14. Accordingly, Applicant respectfully requests the Panel reverse the Examiner's rejections and permit claims 1-26 and 30 to issue.

Respectfully submitted,

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